FARM REPORT

In This Issue:

Phosphorus, Algae Blooms and Agriculture	2
What's Happening on the Farm	3
Fun and Games in the Alfalfa Field	4
Importance of Digestion and Passage	5
Should You Let Alfalfa Bloom Once Each Year?	6
To Treat or Not to Treat?	7
Catching Some Z's	8
Weird Weather; The World Has Gone Crazy	9
Different Strokes; Welcome Summer Students!	10
Centennial Summer Fair: July 14, 2018	11

Visit our blog:
minermatters.com

Like us on Facebook
facebook.com/WhMinerInstitute

FROM THE PRESIDENT'S DESK: JUNE DAIRY REFLECTIONS

June is dairy month, but as I write this article the dairy economy remains mired in low milk prices and pervasive pessimism. However, I am optimistic about the future of dairying in our region. Despite the challenges - and they are severe - the fundamental strengths are intact: ability to grow high quality forages, adequate water, moderate climate, and a large market for dairy products in our back yard.

Agriculture is the most important industry in New York State – a fact that astounds most people who live outside the northeast. The Empire State Council of Agricultural Organizations reports that the agriculture industry contributes over $40 billion annually to the New York economy!

Let's focus on the dairy industry. New York is the third largest milk producing state in the country and the third largest grower of corn silage to feed about 620,000 cows that call New York home. New York and Wisconsin lead the nation in total forage production. New York also ranks first in production of yogurt, cottage cheese, and sour cream. In fact, the state's dairy farms comprise about half of all agriculture receipts. Of the top-100 dairy counties in the U.S., ten are in New York State, with three of them – St. Lawrence, Jefferson, and Lewis – located here in Northern New York. Right in our backyard, Clinton County has about 18,100 dairy cows on 93 farms and ranks 117th among U.S. counties in milk production.

The economic impact of dairy farming in aggregate is substantial but can be easily overlooked because it's spread out over 90-plus farms in our county. Consider the value of an industry to our county that produced over $70 million in annual sales and employed about 900 people. According to the New York State Department of Ag and Markets, that is what the farms in Clinton County did as reported in the most recent census.

According to Cornell University, every dollar of dairy farm output generates about $0.80 in the local economy. This economic multiplier compares favorably with high-profile industries such as construction, the service sector, manufacturing, and retail trade.

A century ago, William Miner wrote that "agriculture is the fundamental occupation." Despite the current challenges, that statement still rings true today. Agriculture provides the foundation of our region's economic and social infrastructure. In fact, a Penn State University study found that regions across the U.S. with more dairy farms

See **DAIRY**, Page 8

PHOSPHORUS, ALGAE BLOOMS & AGRICULTURE

From Lake Champlain to the Great Lakes and New York's Finger Lakes, algae blooms are in the news. Eutrophication is the proliferation of aquatic plants driven by excessive nutrients, leading to subsequent oxygen depletion when plants die and compromised water quality. Nutrient enrichment of water bodies combined with warm temperatures and shallow water increases the risk for algae blooms and eutrophication.

In freshwater systems, algal growth is generally limited by phosphorus (P), however, nitrogen (N) and micronutrients also contribute (though their role is not as well understood). In saltwater, N is generally considered to be the main driver of eutrophication risk (i.e., in the Gulf of Mexico and Chesapeake Bay). Sources of N and P vary by watershed. Nutrient inputs for urbanized watersheds are often dominated by point sources, such as wastewater treatment plants and storm water drains, whereas nonpoint sources from agricultural activities are more important in rural watersheds.

Nutrient transport from the landscape to water bodies is a complex process influenced by interacting factors including climate, weather, runoff processes/hydrology, land use, and land management. In many watersheds such as Lake Champlain and the Great Lakes, both urban and agricultural sources contribute to P losses. However, since point sources of P have been reduced substantially over the last several decades, regulators have focused more attention on reducing nonpoint P sources.

Despite the fact that urban sources are a major P contributor, agriculture is under increasing pressure to reduce P losses. Phosphorus is an essential nutrient for profitable crop production, but too much or improperly placed P is at a higher risk of runoff from fields. For example, manure contains substantial P and is an excellent source of fertility, however, applying it beyond crop needs or not incorporating it into the soil increases the risk of P loss. Since P is strongly bound to soils, practices that reduce erosion (i.e., reduced tillage, cover crops, tile drainage) generally reduce total P loss. However, where soil P levels are excessive, P solubility is greater and more vulnerable to runoff losses.

Lake Erie is a good example of the complexity surrounding eutrophication. Being a shallow lake (mean depth = 62 ft.), it is inherently more at risk for algae blooms compared to the other Great Lakes. The lake experienced severe eutrophication during the 1970's, however, reduction in point sources of P resulted in improved water quality during the 80's and 90's. More recently, the lake has once again experienced recurrent algae blooms. While urban P sources are still important (i.e, Detroit River), there is now greater emphasis on reducing agricultural P sources.

While total P losses from nonpoint sources have continued to decrease in the Lake Erie watershed, recent studies show increases in soluble P. Part of the decrease in total P has been attributed to widespread adoption of no-till and the associated reduction in erosion and particulate P transport. Many of the fields in the watershed are also tile-drained, which further contributes to lowering surface runoff and erosion. In addition, several other factors are likely contributing to soluble P increases. A recent article (Smith et al., 2015) outlined 25 potential factors that could contribute to greater soluble loading to streams. These are listed below (not in order of potential importance) with a brief explanation in parentheses.

1. Climate change (increased extreme precipitation and runoff events)
2. Commodity prices (higher prices and more P applied for 'insurance')
3. Cropping system (less diverse rotations, more corn/soybeans)
4. Crop nutrient efficiency (today's crop genetics may not require as much P)
5. Ethanol demand (more corn being planted, which requires more P)
6. Fertilizer placement (much fertilizer P is not incorporated into soil)
7. Fertilizer rates (P is often applied above agronomic recommendations)
8. Tri-State recommendations (same P rates recommended across various soil types)
9. Fertilizer source (switch to P fertilizers with higher pH)
10. Fertilizer timing (P fertilizers often applied during non-growing season)
11. Glyphosate-resistant crops (long-term glyphosate use may alter P availability)
12. Soil pH (rain pH has increased from 4.4 to 5.2, possibly increasing soil P release)
13. Larger farms (more P applied during non-growing season with larger acreage)
14. Less erosion and sediment in runoff (less ability to bind soluble P in runoff)
15. More manure application (improper manure placement can increase runoff P)
16. Misconceptions (low P loss can still result in water quality impairment)
17. Nitrogen (excess N can fuel Microcystis and other algae growth)

See **WATER**, Page 3

WHAT'S HAPPENING ON THE FARM

After a cold, snowy and wet April, when winter finally decided to end, our crops crew got right into the fields and started working hard. As soon as the fields dried up we started spreading composted manure, emptying our compost site. We also cleaned any brush, sediment, and dead grass out of the ditches and picked stones on our cornfields. We've had quite a hardworking crew this year as most of the barn employees got right into helping in the fields in addition to their other work. Hollister Seed and Supply put UAN (liquid nitrogen) on the grass fields to provide a vital nutrient so the growth of grass is healthy and vigorous. We've also been working on establishing 90 acres of new seedings. These new seedings consist of alfalfa, tall fescue, reed canarygrass, and perennial ryegrass, with a cover crop of oats to keep weed pressure down and allow us to harvest first cutting faster. So far, first cut looks like it's coming well. At the time of writing this article we're also planting corn. Another change that has happened recently is the addition of signs on our re-numbered bunks. Shawn Bechard, our crops supervisor, came up with the idea, as these reflective signs make sure that everything gets recorded accurately by our feeders and can be seen in the dark as well.

Inside the barn we're eagerly awaiting the arrival of our four Summer Experience in Farm Management students. This year two are from Michigan State, one from Massachusetts, and one from Maine. The staff is always happy to meet new faces and teach them about what we do on a day-to-day basis. It's always exciting to see young people who are passionate about the dairy industry, especially when times are tough. These students go through five rotations throughout their summer experience, including herd health, calves, feeding, milking, and crops. Another experience we give the students is the chance to show a heifer at the Clinton County Fair. We are soon starting to scope out some nice-looking show animals before the students arrive. Three studies are coming to an end by late May and soon there will be more starting up. Summer on the farm is shaping up to look pretty busy!

— *Victoria Vendetta*
vendetta@whminer.com

WATER, Continued from Page 2

18. No-till (can increase proportion of soluble P lost in runoff and tile drainage)
19. Rental agreements (may specify maintaining P at crop removal rates)
20. Soil P enhancers (may increase P bioavailability and soluble P in runoff)
21. Altered soil biology (genetically engineered crops may enhance P release)
22. Soil testing (inconsistent laboratory recommendations; outdated testing)
23. Phosphorus stratification (no-till increases P buildup in surface soils)
24. Tile drainage (tile drains may contribute soluble P where soil P is excessive)
25. Zebra mussels (excrete bioavailable P, increase clarity and light penetration)

It is clear P loss is a complex process. While we know sound nutrient management reduces P transport risk, establishing cause and effect relationships between agricultural practices and the occurrence of algae blooms is exceedingly difficult. Besides other P sources in watersheds, further complicating matters is the fact that most all of the P that has ever reached Lake Erie or any other large water body still reside in sediments. Unlike N, P is not lost to the atmosphere, thus remaining in the system indefinitely to be recycled. The bottom line is that we must all do our part to reduce P losses and be proactive about adopting practices that maintain both farm profitability and water quality. In agriculture, we must also recognize management trade-offs and be willing to embrace new science as it emerges.

— *Eric Young*
young@whminer.com

FUN AND GAMES IN THE ALFALFA FIELD

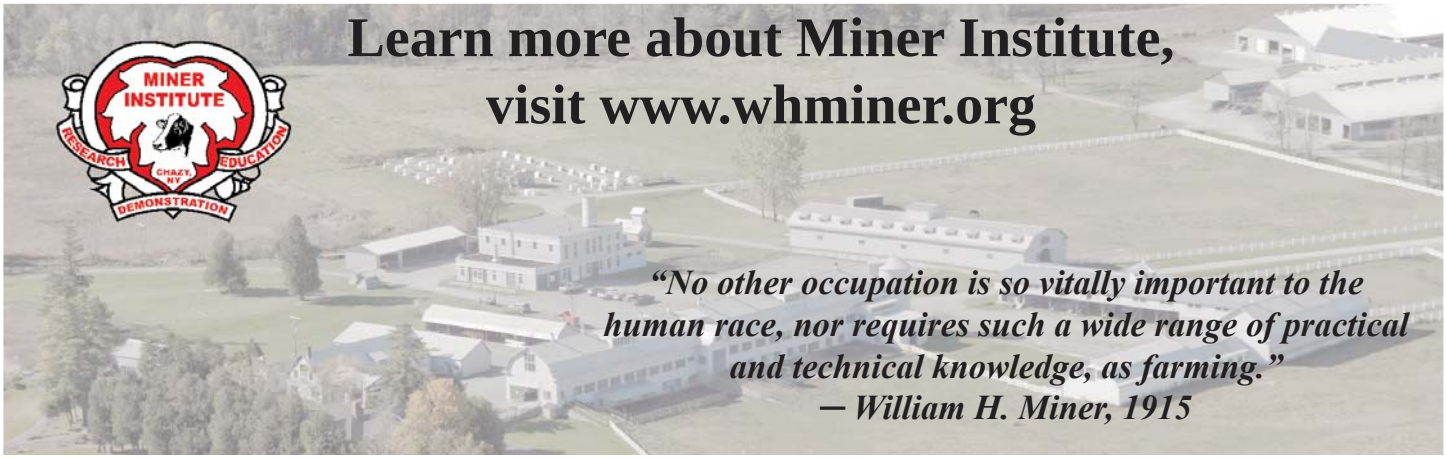
The alfalfa quality dam was broken with the release of both GMO and conventionally bred reduced-lignin alfalfa varieties; now it seems that every seed company has a high-digestibility alfalfa variety — or at least claims to. And with no routine forage quality testing of the varieties entered in university alfalfa variety trials it's often difficult to evaluate quality claims. However, experience suggests that a seed company simply tagging the HD (high digestibility) or HQ (high quality) designation onto a corn hybrid or alfalfa variety doesn't assure superior quality.

The management of reduced-lignin alfalfa varieties is proving to be additional job security for those of us advising dairy farmers. (I've already done one webinar on this topic for a Quebec agribusiness and am scheduled to do another on July 9th for Hoard's Dairyman.) Oh, we manage to maintain job security anyway by occasionally doing a "180" on a previous recommendation, using the (perfectly legitimate) excuse that our recommendations are only as good as the current research data. New research data? New recommendations!

How farmers manage reduced-lignin alfalfa is a complex issue, involving not only which type of reduced-lignin alfalfa the farmer plants (GMO vs. non-GMO) but whether he plants straight alfalfa or alfalfa-grass. And if he plants straight alfalfa, whether he intends on harvesting it at the bud stage or waiting 7-10 days until about 10% bloom. Delaying first harvest by a week or more will result in considerably higher yield, perhaps another ½ ton or so of dry matter per acre. It's already tough enough in some years to get first cut dried to 35-40% DM; how much harder will it be with another half-ton of dry matter (over 3 tons of freshly-mowed forage)? Wide windrows will certainly be a must.

I think that with time farmers will be using a variety of management options, even where they seed reduced-lignin alfalfa with a forage grass. We say that farmers shouldn't delay harvest by 7-10 days if they seed alfalfa-grass because the grass will get too mature. That certainly is true with first cut, but what about later harvests if the grass is a small percentage of total yield? Perhaps if there's little grass in third and fourth cuts the farmer could delay harvest by a few days past the late bud stage, thereby slightly increasing yield while still retaining high forage quality. And what impact will delayed harvest have on fall management? Time will tell!

— Ev Thomas
ethomas@oakpointny.com



IMPORTANCE OF DIGESTION AND PASSAGE

Ruminants are designed to digest plant cell wall, also known as fiber or neutral detergent fiber (NDF) and change it into edible human products such as milk and meat. This is done by anaerobic fermentation in the rumen performed by microbes, protozoa, and fungi. When fiber is eaten it has two ways to leave: either by digestion or passage as shown by Figure 1. Intake is the simplest of the variables in the figure to measure since it is simply how much dry matter the cow eats in a day. Digestion and passage are expressed as rates and are much more difficult to measure.

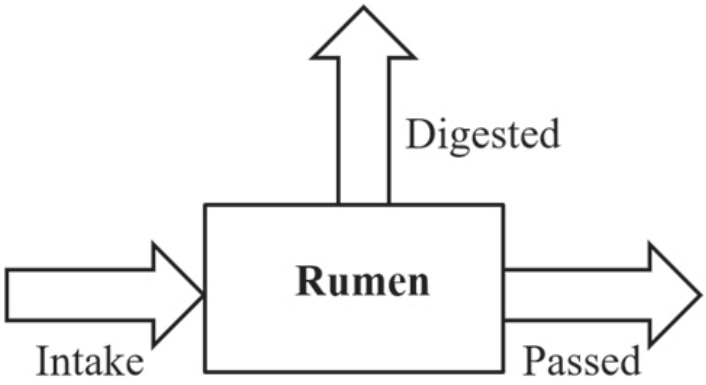


Figure 1. Simple model of rumen fiber kinetics.

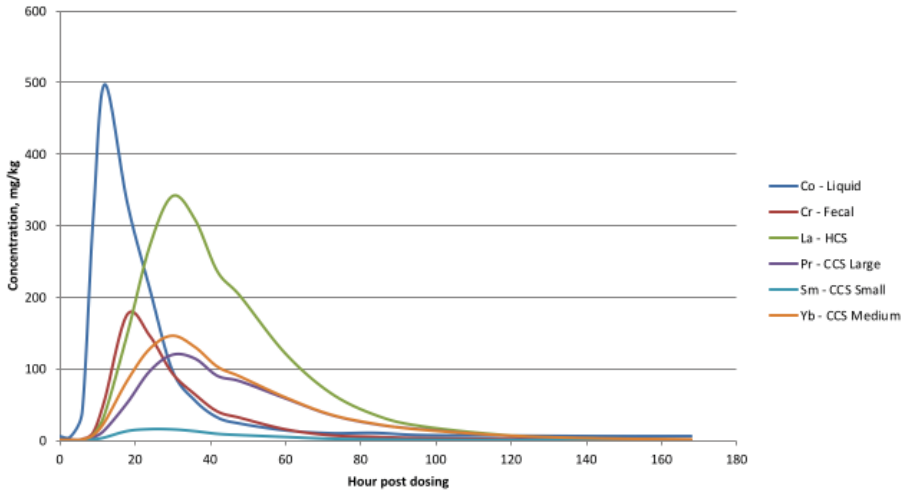


Figure 2. Typcial fecal excretion curve of rare earth marker.

Digestion rates have been a major focus for ruminant nutrition research for the past 40 years, and can be measured with in vitro or in situ systems. The in vitro system uses dried and ground feed samples with rumen fluid, buffer, and minerals among other things in flasks incubated in a heated water bath for a period of time to mimic the rumen. The in situ system uses a dried and ground feed sample in bags that are placed into the rumen for a period. These measurements give a good representation of digestion that occurs in the rumen.

However, passage rate has not been extensively studied and is much harder to measure. A common method involves attaching rare earth elements to feed that is then dosed into the rumen and measured in the feces at multiple time points. These concentrations in the feces are used to calculate a rate from the typical excretion curve shown in Figure 2. The intake and rates are used to mathematically model the kinetics of the rumen and can be used to estimate intake and pool sizes for different diets. The more accurately we can predict intake, the better we will be able to predict milk or meat production.

Passage rate is affected by particle size, density and buoyancy, and entanglement of particles in the fiber mat. If a particle is too large to pass it stays in the rumen until digestion and rumination reduces the particle size. Particles with a higher density will be more likely to be at the bottom of the rumen which would allow greater opportunity to pass. The same is true for buoyancy; the less buoyant a particle, the more likely it will be passed. Digestion of a particle will decrease particle size, increase density of the particle, and decrease the buoyancy. The faster rate of digestion will increase the rate of passage.

In a Journal of Dairy Science article researchers at Michigan State University reported that alfalfa silage-based diets had a faster passage rate of small potentially digestible NDF (pdNDF) and indigestible NDF (iNDF) than orchardgrass silage-based diets, which allowed the cows fed the alfalfa silage-based diets to have a lower rumen fill. The rate of digestion was much faster for alfalfa than orchardgrass, which allowed the particles to be reduced to adequate size and density to pass. When forage NDF digestibility is increased the cow can consume more feed.

Modeling rumen kinetics accurately is vital to predict intake and performance but takes a lot of work to measure digestion and passage rates. As land and environmental restrictions increase, we will need to be able to grow more feed on less ground while maximizing efficiency of feed through the cow. Increasing NDF digestibility of forages will allow particles to be broken down faster in the rumen and to pass out resulting in lower rumen fill, higher intakes, and greater production.

— Mike Miller
mdmiller@whminer.com

SHOULD YOU LET ALFALFA BLOOM ONCE EACH YEAR?

Some agronomists recommend that one cutting of alfalfa per year should be allowed to reach the bloom stage. But not this agronomist; for many years I've said that in managing alfalfa for dairy cows you should never see an alfalfa blossom, from seeding to plowdown. There's room for difference of opinion since I know of no research supporting one recommendation over the other. And any research would have to be multi-year since the growing season and subsequent winter conditions could affect the outcome.

If you do want to allow one cutting of alfalfa to bloom, which one? (These comments apply to conventional alfalfa, not reduced-lignin varieties.) Over 80% of alfalfa grown in the Northeastern U.S. and Eastern Canada is seeded with a forage grass, so you certainly don't want to delay harvest of **first cut** alfalfa-grass because it usually has the most grass, and even late-maturing grass species are close to heading when alfalfa is in the late bud stage. **Second cut?** Heaven forfend! The long, warm days of June usually result in fine alfalfa stems, but highly lignified ones. A trial at Miner Institute found that the stem quality of bud stage second cut alfalfa was no better than that of full bloom first cut. **Third cut?** Perhaps, but what if your prior harvest management resulted in third cut growing during the heat of midsummer? In this case third cut could be similar in quality to second cut, with highly lignified stems. For instance, if you take first cut in late May and make second and third cuts at 30-day harvest intervals, third cut would be in late July. How about **fourth cut?** Alfalfa growing during late summer and into the fall often takes a very long time to come into bloom, if it ever does. Sometimes a killing frost arrives first. And for any cutting, the more grass in the stand, the more forage quality will be reduced by allowing the alfalfa to bloom.

The objective of letting alfalfa bloom is to improve root reserves and therefore extend stand life. Back in the 1960s that was Cornell University's alfalfa management recommendation: First cut in June at early bloom, second cut 6 to 7 weeks later (!). However, at the time average milk production in NY State was 8500 lbs. per cow! And unless you allow the alfalfa to reach full bloom I think that the impact on root reserves will be modest. We need to balance the impact of delayed harvest on plant health with the economics of feeding alfalfa of lower quality than is needed by today's high-producing dairy cows.

There are many ways to manage alfalfa and alfalfa-grass, depending on whether your primary goal is long stand life or high milk production potential. Now you know where I stand on this.

— Ev Thomas
ethomas@oakpointny.com

DAIRY, Continued from Page 1

enjoyed a more favorable social and economic climate.

As we celebrate June as dairy month, we need to redouble our efforts to address and solve the challenges that confront the dairy industry – in our region and nationally. The solution will need to include strengthening export markets as well as our local markets. We cannot lose sight of the fact that agriculture – and dairying especially in the North Country – underpins our regional economy, produces healthy food locally, and enhances regional tourism.

William Miner insisted that farming is fundamental, and we must continue to strengthen and celebrate this fundamental occupation so characteristic and vital to the success of our region.

— Rick Grant
grant@whminer.com

TO TREAT OR NOT TO TREAT…?

One of the largest pressures facing agriculture right now is the ongoing effort to reduce the amount of antibiotics used in food production. In November 2017 the World Health Organization launched new guidelines on the use of antibiotics in food-producing animals that are important to human medicine, recommending that farmers stop the use of those antibiotics to promote growth and prevent diseases. While it's one thing to restrict the use of antibiotics for growth promotion, a lot of farmers are extremely reluctant to stop using antibiotics for disease prevention such as dry cow treatments. However, in some countries this is a reality that faces many farmers.

The Dutch dairy industry is quite influenced by the concerns of consumers. So to cope with the pressure of reducing prophylactic antibiotic use, the Dutch Parliament set several targets for their farmers to meet. Using 2009 as their baseline, a 20% reduction was targeted for 2011, 50% for 2013 and 70% for 2015. With dry cow treatment being the most common form of preventative antibiotic use on a dairy farm, Dutch farmers transitioned from blanket dry cow therapy, where every cow gets treated, to selective dry cow therapy, where only certain cows are treated. This transition was supported by a national guideline, with the individual cow's somatic cell count at the last milk test before dry-off as the main selection criterion for whether a cow should be treated with antimicrobial dry cow therapy. The guidelines state that only 1st calf heifers with a somatic cell count over 150,000 cells/ml and mature cows with a somatic cell count above 50,000 cells/ml should be treated with antimicrobial dry cow therapy. With udder health important to dairy farmers there was a lot of concern that failing to treat all cows at dry-off would result in an increase in cows developing mastitis during the dry period and a decrease in the number of cows cured of an infection during the dry period.

So what happened? A group of researchers from the Netherlands followed over 3400 herds through the transition from blanket dry cow therapy to selective dry cow therapy and found that, based on somatic cell count, the reduction in the number of antimicrobials used on dairy herds did not have a harmful effect on udder health during the dry period. In 20 herds with over 2638 cows, the transition from blanket dry cow therapy to selective therapy was possible without an increase in the percent of cows culled.

Research done by another group of Netherlands researchers evaluated the economics of selective dry cow therapy compared to blanket dry cow therapy by quantifying the costs of clinical and subclinical mastitis as well as antimicrobial use. From an economic standpoint, blanket dry cow therapy seems to not be the optimal approach of dry cow therapy for all evaluated levels of bulk tank somatic cell count, although the economical differences between dry cow therapy approaches were small. The economic benefit of selective dry cow therapy over blanket dry cow therapy became greater as the herd's incidence of clinical mastitis and bulk tank somatic cell count decreased. In fact, in herds with low incidence of clinical mastitis the cost of using no antimicrobial dry cow therapy was less than the cost of enlisting blanket dry cow therapy. Thus, economics can't be used as an argument against the reduction of the use of antimicrobial dry cow therapy by applying selective dry cow therapy practices.

These results indicate that in a well-managed herd, switching from blanket to selective dry cow therapy is unlikely to be deleterious to udder health, and could perhaps even be economically beneficial. Although, it may require some shifting in management practices and on-farm protocols. Penn State Extension states that if your bulk tank somatic cell count is higher than 200,000 cells/ml, you should prioritize decreasing that number before considering a switch to a selective dry cow therapy program. In addition to talking with your veterinarian to develop a plan to improve udder health, optimizing cleanliness within the barn and the milking parlor should lower overall herd somatic cell count. The demand for a food production system free of antibiotic use is continuing to increase, which makes selective dry cow therapy an option that needs serious consideration. As European countries have shown, this transition is possible without compromising your herd's health or breaking the bank.

— Ashley Cate
cate@whminer.com

CATCHING SOME Z'S

Sleep is incredibly important to humans, and the amount of sleep can affect our productiveness day to day. On average adults need 7-8 hours of sleep each night to feel refreshed and well rested. Meanwhile teenagers need around 9 hours…a very long time for them to be unattached from their social media platforms! Lack of sleep can lead to impaired memory and reduction in cognitive abilities. If sleep deprivation persists, mood swings and even hallucinations can occur. When we think of sleep we think of rest, but that's not the case. Sleep is actually an active period for our brain to solidify and consolidate memories. This is very important because throughout the day our brains are constantly taking in new information. According to the American Sleep Association there are five stages of sleep: Stage 1, 2, 3, and 4 are all categorized as "Non-REM sleep" and the 5th stage is REM sleep. Stage 1 is the lightest stage of sleep, brain frequency slows, but breathing is at a regular rate. Stage 2 represents a deeper sleep, the sleeper is less able to be awakened. Stage 3 and 4 are progressively deeper stages of sleep and are known as deep sleep when the sleeper is often difficult to awaken. As you get older you tend to not spend a lot of time in these two stages. Finally,

stage 5 or REM sleep is the stage of sleep that is associated with dreaming. The brain frequency resembles wake time but the muscles are without movement. It's been theorized that the muscles don't move to protect the individual from injury during sleep.

We understand how important a good night sleep is for humans, but what about our dairy cows? We know how important cow comfort and rest times are important for well-being, but are your cows getting enough sleep?

In 1972 researchers from the national veterinary school in France were the first to study sleep in dairy cows. It was determined that dairy cows spend 10-12 hours lying down, with 4 of those hours spent sleeping and nearly 8 hours spent drowsing. More recent research suggests that cows housed in a barn have a diurnal sleep pattern, meaning most of their sleep occurs at night, usually when the barn is least active. The amount of sleep differs for each stage of production. Calves tend to sleep longer than adult cows and spend less time drowsing. Researchers also observed that cows in early lactation and peak lactation slept less than cows that are in their dry period. A possible explanation for this is that when cows spend more time eating they spend less time resting and sleeping. Sleep deprivation from a dairy animal standpoint will likely alter immune function, which can lead to a loss of production. Stall availability, stall design, and social hierarchy are factors that can affect the amount of time cows spend lying down but it has yet to be determined if this affects the amount of sleep. Even though there is not a lot of research regarding sleep and welfare we do understand that sleep is important for the immune system to function properly. The next step in research is to help better understand sleep and the duration of sleep on cow health and welfare.

— Katie McMahon
mcmahon@whminer.com

The Heart's Delight Farm Heritage Exhibit is now open!

For more information, visit http://whminer.org/heritageexhibit.html

WEIRD WEATHER

We live by the calendar, but your crops do not. April 2018 behaved like March, which had a significant impact on the development of perennial crops. May also started out poorly before some nice weather finally arrived. With this weird weather don't expect first cut forage to have typical quality if harvested on the usual calendar date. In most cases farmers wait until grass is in the boot stage and alfalfa is in the bud stage, but as the days tick by there are temptations to just have at it. Also, the wet conditions (in April we had 5.4" of precipitation at Oak Point) delayed (and in some cases prevented) the application of nitrogen fertilizer to grass fields. Expect lower yield and protein in these crops, especially fields that didn't get any N.

Forage analyses are always important, but especially so for this year's first cut. I've seen years when first cut alfalfa was still in the bud stage a week or so into June, but when harvested it didn't test like bud stage alfalfa — much worse. Not good news, but knowledge is power — if you use it. All forage analyses should include fiber digestibility; forages making a considerable portion of their growth during cloudy weather may have poor digestibility, and just looking at crude protein and NDF won't pick this up. Furthermore, Peter Van Soest used to say that forages growing under cloudy conditions often feed worse than the forage analysis suggests they should. Your cows (and your bulk tank) are the final determinants of forage quality.

— *E.T.*

LISTENING VS. HEARING

The other day The Bride and I had a spirited "discussion" (for lack of a better word) about something she insisted she told me but about which I had an imperfect recollection. She often accuses me of having less-than-perfect hearing, a condition not unusual for a person of a certain age. However, in this case I clearly remembered the topic under discussion (regarding the proper use of rebar, an arcane topic to most but not to T.B., who in her career designed hundreds of buildings). Somewhere toward the end of the discussion I continued to hear her but I had stopped listening. Therefore, I had a good understanding of the technical requirements of the rebar — length and diameter — but not the specific application thereof. Which, for some reason, she thought was important…

I'm afraid that the same may be true for some of you as you read my previous article, "Weird Weather". You read ("hear") what I'm saying about the importance of forage analysis, but are you listening? Not if you harvest, store and start feeding this year's first crop without the benefit of forage analysis.

— *E.T.*

THE WORLD HAS GONE CRAZY

First it was GMO-free bottled water. But as nutty as people are about what they're willing to put down their own throats, this sometime includes the concern they have for their dogs and cats. I thought I'd seen it all with an ad for GMO-free pet food. But recently the British Veterinary Association felt it necessary to issue a statement to the effect that dogs can't develop autism. They did so because pet owners were refusing to have their critters vaccinated for fear that the vaccine would cause autism.

During my high school and college years I worked for a very large veterinary practice, 40 hours per week during the school year, 60 hours per week during the summer. All dogs and cats, with an average of about 125 furry critters in residence, 200+ during the Christmas holidays. One of my jobs there was bathing dogs (and occasionally an indignant cat), sometimes dozens in a day. Therefore, I got "up close and personal" with dogs of every breed as well as the "Heinz 57" variant. Most were fine to handle, not delighted to be bathed but resigned to their fate. A few were not fine, and I have scars from one or two of these. But I never once encountered an autistic dog.

— *E.T.*

Is there something you would like to know more about?

Send *Farm Report* article suggestions to Rachel at dutil@whminer.com

DIFFERENT STROKES…

The May issue of *Forage* magazine is a reminder of how different the Northeast is from the rest of the U.S. in its forage production practices. It had four articles on irrigation, two on handling baled hay, and three on pasture management. (It also included two articles on alfalfa management, one by this writer.) At least 80% of the alfalfa in the Northeastern U.S. is seeded with a cool-season grass, while in the rest of the U.S. 90% of the alfalfa is seeded without any grass. Most of our alfalfa-grass is chopped and ensiled, much unlike other areas where baled hay is the standard and often sold as a cash crop. (Baled hay is the third largest U.S. cash crop by value, trailing only corn and soybeans.) And the Northeast has almost no irrigated alfalfa while in much of the Southwestern U.S. no irrigation means no crop. Part of the reason for the dry hay vs. silage difference is that most alfalfa harvested in the Northeast is fed on the farm where it's grown, therefore storage as silage is more efficient. But the primary reason for the difference in the alfalfa vs. alfalfa-grass issue is soil quality; The last ice age resulted in the soils in the Northeast being much more variable in drainage, pH, etc. Therefore, it should be no surprise that the management practices that work well in an irrigated alfalfa field in Arizona won't work in a rolling field in NY that has several soil types.

— *E.T.*

WELCOME 2018 SUMMER STUDENTS!

Back Row L to R: Cassie Magdziarz, Summer Experience in Equine Management from West Texas A&M University; Katrina Klobucher, Summer Experience in Farm Management from University of Massachusetts Amherst; Laura Livingston, Summer Experience in Farm Management from Michigan State University; Lynn Olthof, Summer Experience in Farm Management from Michigan State University; Alexandra Banks, Summer Experience in Farm Management from the University of Maine; Maddie Bennett, Summer Experience in Equine Management from the University of Idaho; Catie Ott, Summer Experience in Equine Management from Pennsylvania State University. **Front Row L to R:** Emily Fread, Summer Experience in Agricultural Research from North Carolina State University; Anna Zhigareva, Summer Experience in Equine Management from the University of Edinburgh; Alyssa Pobocik, Summer Experience in Equine Management from SUNY Cobleskill; Jazmin Markey, Summer Experience in Agricultural Research from Delaware Valley University; Tori Daniels, Summer Experience in Agricultural Research from the University of Illinois; and Dominique D'Huyvetter, Summer Experience in Agricultural Research from the University of Wisconsin-Madison.

Calling all doughboys and ragtime gals!

CENTENNIAL SUMMER FAIR

Saturday, July 14
1-4 pm

Hosted by Miner Institute
Chazy, New York

TO BENEFIT THE UNITED WAY

World War I Era Entertainment

1918 — 2018

Historical Exhibits
Life on the Home Front and Overseas

Refreshments
Maple Creemies provided by Parker Family Maple
Popcorn & More!

Equine Demonstration
Learn about the role of horses in wartime

Costume Contest
Prizes for best vintage attire!

1910s Music & Dance Demonstration
By Dance Plattsburgh

Croquet & Lawn Games

SPONSORED BY MINER INSTITUTE AND THE ALICE T. MINER MUSEUM

The William H. Miner Agricultural Research Institute
1034 Miner Farm Road
P.O. Box 90
Chazy, NY 12921

Change Service Requested

Non-Profit Organization
U.S. POSTAGE PAID
Chazy N.Y. 12921
Permit No. 8

This vehicle is part of the antique vehicle exhibit in the Heart's Delight Farm Heritage Exhibit Coach House.
It sprinkled water on the roads to keep the dust down at Heart's Delight Farm.

Closing Comment

Marriage is a relationship in which one person is always right and the other is the husband.

www.whminer.org
518.846.7121 Office
518.846.8445 Fax